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## THE LIMACIDAE AND PHILOMYCIDAE OF PITTSYLVANIA COUNTY, VIRGINIA

BY LESLIE HUBRICHT

The present paper is the second installment on the land snails of Pittsylvania County, Virginia. The first on the Polygyridae, was published in *The Nautilus*, vol. 64, no. 1, July 1950. Other groups will be treated later as they become better understood.

*Limax maximus* Linnaeus. This species is abundant in all urban areas throughout the county. Occasionally it is found in the woods, where it attains a much larger size than in the towns.

*Limax flavus* Linnaeus. Known only from two specimens found in Gretna.

*Limax marginatus* Müller. Common in gardens and waste ground in Danville and Gretna.

*Deroceras reticulatum* (Müller). Found occasionally in Danville and Gretna.

*Deroceras laeve* (Müller). Common in all urban areas, along roadsides, and in clearings and meadows throughout the county. I have never seen a specimen in deep woods.

*Milax gagates* (Draparnaud). Common in Danville.

*Philomycus carolinianus carolinianus* (Bosc). A common species in the flood plains of the Dan, Roanoke, and Banister Rivers.

#### PHILOMYCUS CAROLINIANUS COLLINUS, **new subspecies.**

Differs from typical *P. carolinianus* in reaching a somewhat larger size, in being browner, and in being without the two rows of black spots. The color pattern consisting of a broad dorsal band and a narrower lateral band on each side and scattered, irregular, small spots between.

Type Locality: upland oak woods, 7.5 miles east of Wilkesboro, Wilkes Co., North Carolina. Holotype A.N.S.P. no. 187431, paratypes A9966, collection of the author.

Figure 405-f, page 757, H. A. Pilsbry, Land Mollusca of North America, vol. II, is apparently of this subspecies.

Typical *P. carolinianus* is the form of the flood-plain woods, while *collinus* is the upland form. It is the common *Philomycus* of the Piedmont. Although not common in the mountains, it has been found at an altitude of 4000 feet at Mountain Lake, Giles Co., Virginia. It is common in upland woods throughout Pittsylvania County.

*Philomycus flexuolaris* (Raf.). In Pittsylvania County this species is found only on the bluffs along the Roanoke River from the Smith Mountain Gorge to Altavista. This is a mountain

species occurring abundantly in western Virginia. It is not found in the Piedmont proper, and I have not seen specimens from west of the mountains.

*P. flexuolaris* was treated as a subspecies of *P. carolinianus* by H. A. Pilsbry (Land Mollusca of North America, Vol. II, p. 786) but I believe it to be distinct as it differs in its color pattern, in its anatomy, and its physiology. It frequently shows a distinct oblique color pattern which is rare in *carolinianus*, and the pigment spots are usually larger, and do not have the sharp outlines usually found in *carolinianus*. *P. flexuolaris* and *P. c. collinus* occur together in many places in western Virginia and there is no intergradation. Not only is the dart sac smaller in *flexuolaris* than in *carolinianus*, as noted by Pilsbry, but the entire genitalia is distinctly smaller. While experimenting with chlorotone for killing slugs, I tried too strong a solution on a mixed lot. The *collinus* were not harmed but the *flexuolaris* were ruined.

*Pallifera mutabilis* Hubricht. A common species in upland oak woods, and along river bluffs.

*Pallifera dorsalis* (Binney). Generally distributed over the county, but not abundant.

*Pallifera secreta* (Cockerell). Known only from two specimens collected in a ravine near the Dan River, west of Schoolfield.

*P. secreta* is also known from a ravine, near Kibler Park, below Pinnacles Power House, Patrick Co.; bluff opposite Radford, Pulaski Co., Virginia; and ravine, Hanging Rock State Park, Stokes Co., North Carolina.

*Pallifera fosteri* F. C. Baker. A common species of upland oak woods. It is the common *Pallifera* over the Piedmont and Coastal Plain, occurring as far north as Washington, D. C., south into Georgia, and east to Norfolk, Virginia, and Washington, North Carolina. I have not seen it in the mountains.

*P. fosteri* becomes mature in late fall and early winter and lays its eggs under logs in January and February. The eggs are adhesive, in elongated clusters of fifteen to thirty eggs, yellow, and surrounded by three membranes.